

05/14/14    Agenda:

- **Remediation Packet for Unit 11 is on my web site**
  - **Any retake or makeup needs to be completed by 5/23**
- Review Homework
  - Worksheet 2 - Central Angles & Arcs
- Review Test
- Section 10.4 - Inscribed Angles
- Homework
  - Worksheet 3 - Inscribed Angles & Arcs

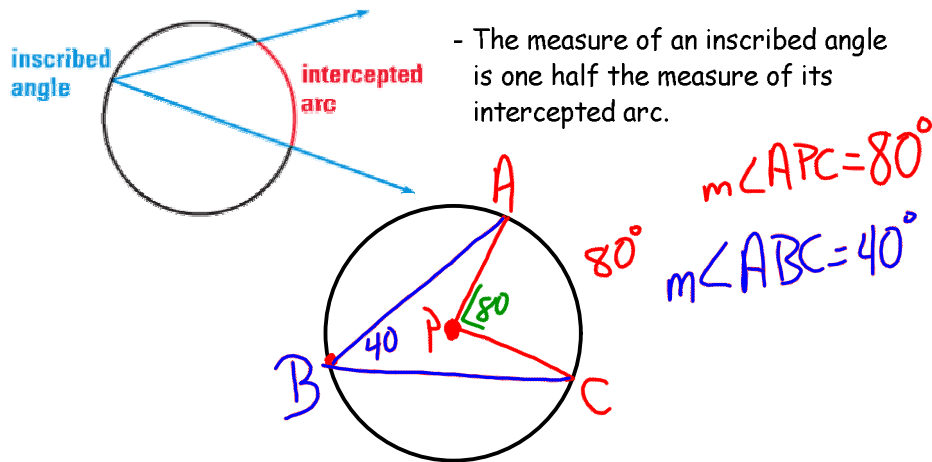
Section 10.4 - Inscribed Angles  
Target 12D

May 14, 2014

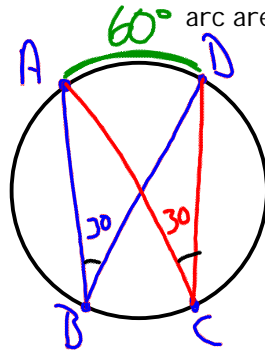
**Goal:** Apply relationships of inscribed angles.

**Inscribed Angle:** An angle whose vertex is ON the circle.

- The measure of an inscribed angle is one half the measure of its intercepted arc.

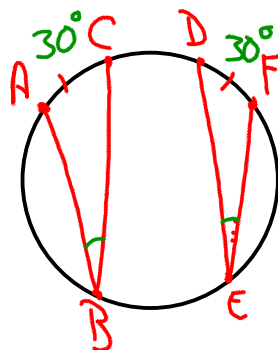


**Same Arc Theorem:** Inscribed angles that intercept the SAME arc are congruent.



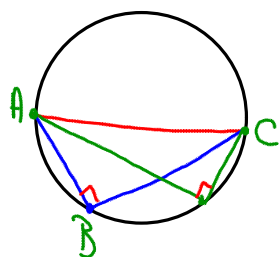
$$\begin{aligned}\angle B &= 30^\circ \\ \angle C &= 30^\circ \\ \angle B &\cong \angle C\end{aligned}$$

**Congruent Arcs Theorem:** Inscribed angles that intercept congruent arcs are congruent.



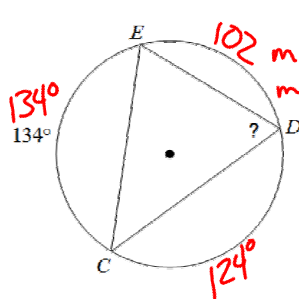
$$\begin{aligned}\widehat{AC} &\cong \widehat{DF} \\ m\angle B &= 15^\circ \\ m\angle E &= 15^\circ \\ \angle B &\cong \angle E\end{aligned}$$

**Inscribed Right Angle Theorem:** If an inscribed angle is a right angle, then the intercepted arc is a semi-circle.



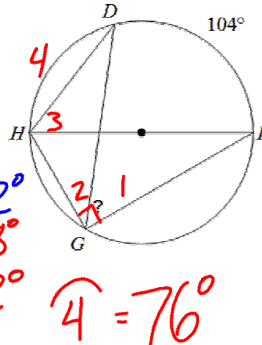
$\overline{AC}$  IS A DIAMETER  
 $\angle B = 90^\circ = \text{RIGHT ANGLE}$

Try these:

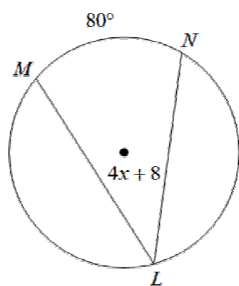


$$\begin{aligned} m\angle D &= 67^\circ \\ m\angle E &= 62^\circ \\ \angle C &= 51^\circ \end{aligned}$$

$$\begin{aligned} \angle 1 &= 52^\circ \\ \angle 2 &= 38^\circ \\ \angle 3 &= 52^\circ \end{aligned}$$



$$\angle 4 = 76^\circ$$



$$4x + 8 = \frac{1}{2} 80$$

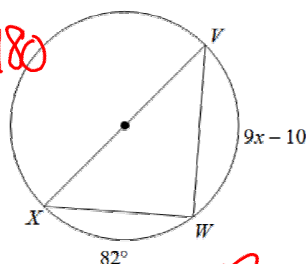
$$4x + 8 = 40$$

$$4x = 32$$

$$x = 8$$

$$(9x - 10) + 82^\circ = 180$$

$$\begin{array}{r} 9x - 10 = 98 \\ +10 \quad +10 \\ \hline 9x = 108 \end{array}$$



$$x = 12$$